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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,294	04/10/2006	Go Mizutani	576P085	8481
42754	7590	11/24/2008	EXAMINER	
Niels & Lemack 176 E. Main Street Suite #5 Westboro, MA 01581			SELLERS, ROBERT E	
			ART UNIT	PAPER NUMBER
			1796	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,294

Applicant(s)

MIZUTANI ET AL.

Examiner

ROBERT SELLERS

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. The elections of Group IV, hydroxypivalic aldehyde-modified trimethylolpropane di(meth)acrylate (R-604) as the cyclic ether di(meth)acrylate, 2,2-dimethoxy-1,2-diphenylethan-1-one (Irgacure 651) as the photoinitiator, ethylene oxide-modified dimethacrylate phosphate (PM-2), and polyether-based urethane acrylate (UA-732) in the reply filed on October 20, 2008 is acknowledged. The election has been treated as without traverse because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement (MPEP § 118.03(a)). Accordingly, claims 8 and 9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuda et al. Patent No. 6,284,185 in view of Takase et al. Patent No. 6,440,519.

2. Tokuda et al. in columns 7-8, Table 1, Comparison Example 9 shows a blend of EPA-1 bisphenol epoxy acrylate, UX-6101 polyester urethane acrylate, Irg 184 photopolymerization initiator, and the elected species of R-604 dioxane diacrylate.

The claimed (meth)acrylate phosphate is not recited.

3. Takase et al. (col. 2, lines 3-13) discloses a mixture of (A) a urethane (meth)acrylate, (B) a (meth)acryloyl phosphate such as the elected species of P-2M (col. 8, lines 63-65), (C) a multifunctional (meth)acrylate such as a bisphenol A diepoxy acrylate (col. 17, Example 1(1)) and (D) a photopolymerization initiator.
4. It would have been obvious to incorporate the (meth)acryloyl phosphate of Takase et al. into the blend of Tokuda et al. in order to improve the adhesive properties (col. 9, lines 30-36).

Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takase et al. and Japanese Patent No. 2002-114949 (Japanese '949) in view of Takeyama et al. Patent No. 4,902,440 and Japanese Patent No. 60-202112 (Japanese '112).

Takase et al. is described in previous paragraph 3.

5. Japanese '949 (Japanese patent, pages 5-6, Table 1 and the translation, page 7) shows a composition comprising polyether urethane acrylate UA-937, EPA-1 bisphenol A epoxy acrylate, PM-2 bis(oxyethylmethacrylate) phosphoric ester, and Irgacure 184 photoinitiator.

Takase et al. and Japanese '949 do not recite the claimed cyclic ether di(meth)acrylate.

6. Takeyama et al. (col. 2, lines 15-28) teaches the use of tris(2-acryloxyethyl)isocyanurate and a hydroxypivalic aldehyde-modified trimethylolpropane triacrylate of formula (2) (col. 3, lines 1-7, the formula corresponding to the elected species of R-604 as verified by Chemical abstracts registry no. 87320-05-6) in a formulation containing an urethane acrylate and photoinitiator.
7. Japanese '112 (abstracts) sets forth the use of a hydroxypivalic aldehyde-modified trimethylolpropane triacrylate of formula I with a polyurethane acrylate and a photoinitiator.
8. It would have been obvious to add the hydroxypivalic aldehyde-modified trimethylolpropane triacrylate of Takeyama et al. and Japanese '112 to the compositions of Takase et al. and Japanese '949 in order to increase the elastic modulus without changing the elongation and to give a lower water absorption (Takeyama et al., col. 3, lines 43-59) and to improve the heat and water resistances (Japanese '112).

The prior art made of record and not relied upon is considered pertinent to the disclosure.

9. Yoshizawa et al. Publication No. 2005/0244752 (page 1, paragraph 8) reports a mixture of a bisphenol epoxy acrylate, a cyclic structure-containing poly(meth)acrylate and a photoinitiator such as preferably the elected species of Irgacure 651 (page 2, paragraph 19).

10. Japanese Patent Nos. 3-166217 and 2003-26738 are directed to blends of urethane acrylates, cyclic ether-containing polyacrylates such as R-604 and photoinitiators.

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/Robert Sellers/
Primary Examiner
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rs
11/21/2008